# CAPTIW©

## Comparative Assessment & Performance Tool for Innovative Workplaces

# V3.0 WORKSHEET
## WITH INSTRUCTIONS

INNOVATIVE WORKPLACE INSTITUTE

# General Instructions for Using the CAPTIW© Online Benchmark Tool

## Purpose:

Developed as a comprehensive workplace design and management analytics and benchmark tool for the knowledge workplace, the Comparative Assessment & Performance Tool for Innovative Workplace (CAPTIW©) evaluates and analyzes the performance of the physical work environment on innovation strategies and innovation performance of a company. It provides companies an analytic platform to assess how their physical workspaces are aligned with the organizational innovation strategies and pursuits, and identify strengths and opportunities for their workplace solutions to best support organizational culture, work processes, and creative people towards the overall organizational innovation performance.

Innovation means the design, invention, development and/or implementation of new or altered products, services, processes, systems, organizational structures, or business models with the express purpose of creating new value for customers as well as financial returns for the firm (1). Innovation is the foundation of the knowledge-intensive economy, the economic competitiveness of a company relies on innovations to grow outcomes beyond the growth of inputs. In order to enhance the innovation performance of knowledge-based companies, it is important to create an environment conducive to innovation. In an organization, four constituents are necessary to achieve innovation: organizational culture pursuing and encouraging innovation, efficient work processes, creative and motivated people, and the physical environment supporting these three constituents. There are certain attributes of the physical environment known to promote innovations by enhancing these three constituents (2) and, thus, it is crucial to identify which attributes and how these attribute of the physical environment affect the organizational innovation procedure.

CAPTIW© integrates seven key performance indicators (KPIs) of the physical environment to the assessment, and analyzes how these KPIs support the critical key indicators in the other three constituents towards innovation. It also analyzes the innovation performance of a company against the benchmark established within the database. CAPTIW© provides comprehensive guidance to companies prioritized workplace solutions and both strengths and opportunities in aligning the physical environment to the organizational pursuits in innovation. It is meant to evaluate purposely designed spaces to support knowledge work in various types of industries, and is not meant to be used for other work spaces such as highly specialized scientific lab areas or manufacturing floors.

## What:

The contents of the tool are divided into 3 Parts:
- o Key Performance Indicators of the Physical Work Environment
- o Company Information and Innovation Strategies
- o Innovation Performance of the Company

Each part contains questions/ measures to evaluate the section topics. The figure below summarizes the contents of the instrument. Specific types of information are needed in each section.
- In Physical Work Environment Part: spatial and interior environmental supports for organizational creativity and innovation such as spatial types measured in usable space, space planning, furniture and technology support, and ambient conditions.

- In Company Information and Innovation Strategies Part: innovation strategies, employment growth, and business type and location (other voluntary information is asked for those who would like a further analysis for innovation strategies and methods)
- In Innovation Performance Part: number of new/ significantly improved products/ services/ processes, organizational business practices, or marketing strategies, number of intellectual property, etc.
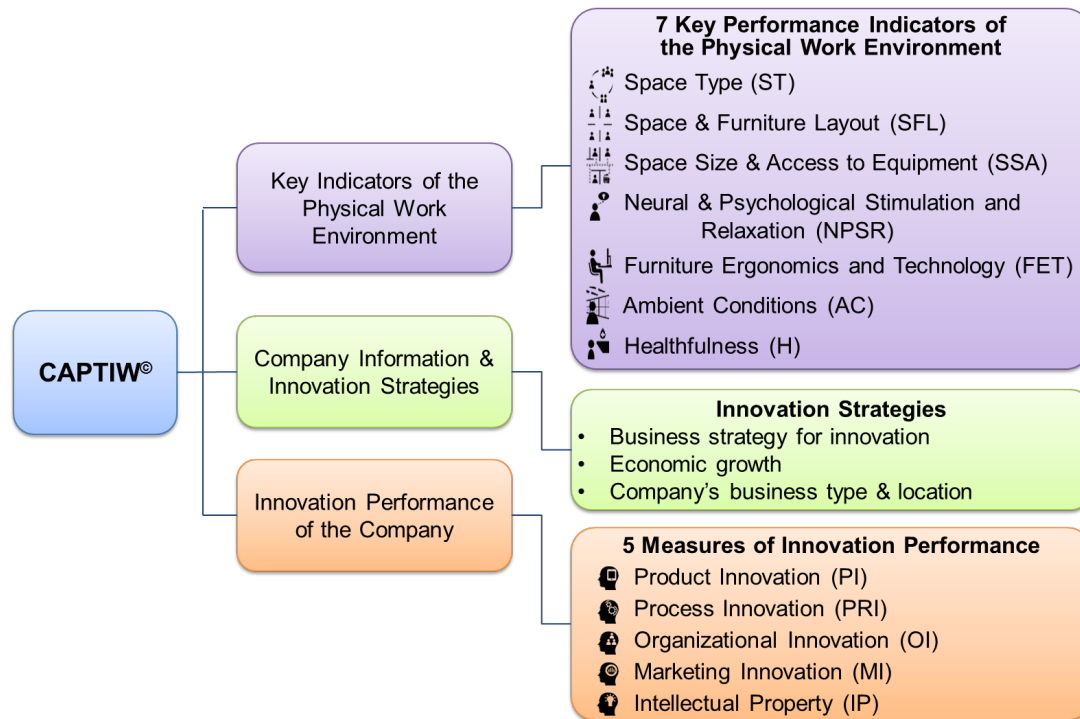


Three Parts of CAPTIW<sup>©</sup>

The three Parts are presented in the instrument in the order of the Physical Work Environment Part > Company Info & Innovation Strategies Part > Innovation Performance Part, following the workplace model of the Creative and High-Performing Knowledge Workplace (CHPKW) developed by Dr. Lee. However, any section in a Part can be filled out first or anytime without following a particular order, depending on the convenience of users and readily available information.

## Who:

This tool is developed as a hands-on diagnostic tool for practitioners: workplace strategists, facility managers, workplace designers, human resources, and the like. Users are able to plan, manage, design, and evaluate the physical spaces based on this comprehensive list of key performance indicators. It is recommended that a professional trained in the workplace design and management take on the role of a coordinator and initiate the tool to gather various information from appropriate personnel in the workplace.

## How:

**For General Process**

| | |
|---|---|
| **1** | Coordinator watches the instructional video and downloads the pdf worksheet |
| **2** | Coordinator contacts appropriate personnel to gather specific types of necessary information |
| **3** | Coordinator fills out the worksheet as information is available, or circulates the worksheet to appropriate personnel to fill out their portion(s) of the form |
| **4** | When the worksheet is all filled out, the coordinator initiates the tool |
| **5** | A random identification number is issued for confidentiality |
| **6** | As each section is completed and saved, a check mark (✓) appears to indicate a completion of the section in the section tabs |
| **7** | When all parts and sections completed and saved, mark the project as Complete |

\* The online assessment tool can be filled out at any time even without using the worksheet. However, it is recommended to look through the questions in advance to fully understand the types of information needed to fill out the assessment tool with or without the worksheet.

**For Information Gathering During Steps 2 and 3**

- o General information
    - o Possible personnel/ departments to contact may include executives, human resources, accounting, IT, finance, or facility planning and management
    - o All the information must be of the specific facilities or spaces of a company/branch of the company being examined
    - o ***Estimates are acceptable*** within the best of the ability when it is necessary. However, precise information is preferable for the accurate results and meaningful interpretations of the data
    - o The total duration of completing the instrument may take 1-2 hours if all information is readily available. However, this may vary if all information is not readily available or an immediate coordination with personnel in other departments is not possible.

- o In the Physical Work Environment Part
    - o Floor plans and/or furniture plans would be necessary to determine the amount of various types of spaces
    - o If some spaces have overlapping functions and purposes, then, count those spaces again for various relevant questions\*. For instance, hallway impromptu meeting spaces may also be set up for chatting and greeting. Then, these spaces can count as meeting spaces as well as socialization spaces. If a private office space is set up with reconfigurability to do collaborative work, this space can count as focus space as well as collaboration space.

- o In the Innovation Performance Part
    - o Calibrate the portion of a company/branch of the company's contribution from the total amount of measures being examined if the work was completed in collaboration with other branches or other companies. (If a branch of a company is filling out the instrument and has the same shared goals and objectives with

the main headquarters of the company, it can fill out the same innovation strategies as the headquarters in the Company Info & Innovation Strategies Part)
- o Only fill out the innovation types relevant to the company. For instance:
    - Manufacturing, wholesale and trade (including cars and bikes) companies may fill out only Product Innovation, Marketing Innovation, and Intellectual Property Innovation
    - Retail, trade (not including cars and bikes), hotels and other hospitality business, financial service, real estate, transport, storage and communication companies may fill out only Product Innovation, Process Innovation, Organizational Innovation, and Marketing Innovation

## Confidentiality:

All the information typed in the instrument is confidential and the results associated with the company's name will not be released or published without permission of the company. If you have any concerns regarding the confidentiality of the information, please contact info@inno-wp.com.

**Notes**

(1) Definition from the US Department of Commerce & the National Economic Council
(2) Work of acquiring, analyzing, and manipulating information to develop suitable solutions to a matter. Knowledge workers are skilled individuals who produce original and useful ideas and solutions for tangible or intangible products, services, or processes.

* The questions in the Key Indicators of the Physical Work Environment Part are formulated to understand the function and purpose of each attribute in supporting the achievement of the creative and high-performing work environment that can be easily transformed to good analyses. Thus, double counting of spaces may be necessary when a space serves more than one purpose.

# PART 1: KEY INDICATORS OF THE PHYSICAL WORK ENVIRONMENT

## Topic 1: Space Type Support

\* Same spaces may be double counted for different questions depending on the purpose of the measurement.
\* A consultation with an appropriate party/personnel, e.g. designer(s), facility manger, furniture provider, etc. may be necessary to answer different sections of the form.

\* Usable space: Usable Area is a fully enclosed space in square feet available for tenant personnel, furnishings, fixtures and equipment (FF&E). This includes the aisles and walkways within tenant spaces for internal circulation on multi-tenant floors or, on single tenant floors, hallways and restrooms exclusively serving their floor(s).
\* Primary work spaces: Primary work spaces include spaces to focus, collaborate, and socialize in ST 1 Choice of Work Spaces.

**ST-1. Choice of Work Spaces: A total amount of work spaces supporting critical work modes in knowledge workplace, measured in the amount of usable space. Count a space by its primary purpose/function.**

**• Focus space is for individual tasks requiring concentration without interruption from others. Examples may include individual workstations, private offices, or small enclosed rooms to conduct individual tasks for mobile workers.**

**• Collaboration space is for group tasks to achieve a common goal between the members. Examples may include formal/informal meeting rooms, conference rooms, or small shared spaces for collaborative activities between workstations.**

**• Socialization space is for social networks and interactions building camaraderie and collegiality. Examples may include hallway impromptu meeting spaces, lounge areas, cafeteria, etc.**

|  | 0% of total usable space | 1-10% of total usable space | 11-25% of total usable space | 26-50% of total usable space | 51-75% of total usable space | 76-90% of total usable space | 91-100% of total usable space |
|---|---|---|---|---|---|---|---|
| ST 1-1. Focus (head-down) spaces | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| ST 1-2. Collaboration spaces | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| ST 1-3. Socialization spaces | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

ST 1-4.  A ratio of the amount of spaces between 3 types of spaces:
(DO NOT FILL OUT. FOR PROGRAMMER ONLY)

ST 1-5.  The level of ratio balance between the three types of spaces for the purposes and goals of the company (from 1 being very inappropriate to 5 being very appropriate)

- ○  1 - Very Inappropriate
- ○  2
- ○  3
- ○  4
- ○  5 - Very Appropriate

**ST 2. Interaction-Collaboration Work Spaces: A total amount of meeting spaces with various degrees of supportive tools for idea generation through brainstorming, charrette, doodling, design improvisation, model making, role playing, etc., measured in the amount of usable space.**

**• Formal meeting spaces are spaces for meetings that are typically closed and equipped with appropriate low- and/or high-tech tools for idea documentation and displaying and sharing of ideas.**

**• Informal meeting spaces are spaces for informal meetings with low- and/or high-tech tools for idea documentation and displaying and sharing of ideas,**

**• Impromptu meeting spaces are spaces that are typically created in the hallways, corners, or other paths of traffic to increase chances of serendipitous or impromptu meetings with or without tools for idea documentation and displaying and sharing of ideas.**

|  | 0% of total usable space | 1-5% of total usable space | 6-10% of total usable space | 11-20% of total usable space | 21-30% of total usable space | 31-40% of total usable space | 41-50% of total usable space | 50% or more of total usable space |
|---|---|---|---|---|---|---|---|---|
| ST 2-1. Formal meeting spaces | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| ST 2-2. Informal meeting spaces | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| ST 2-3. Impromptu meeting spaces | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

ST 2-4.  Total Percentage of Doodle Spaces:
(DO NOT FILL OUT. FOR PROGRAMMER ONLY)

ST 2-5. The level of balance of the total interaction-collaboration work spaces for the purposes and goals of the company (from 1 being very inappropriate to 5 being very appropriate)

○ 1 - Very Inappropriate

○ 2

○ 3

○ 4

○ 5 - Very Appropriate

**ST 3. Recharge Spaces: A total amount of either separate spaces or spaces with features integrated to work spaces or workstations that are intended for a short mental break to recharge or building camaraderie while doing activities not related to work, measured in the amount of usable space.**

**• Play spaces are designated, separate spaces or other spaces with features integrated to the spaces for playing, such as individual work spaces with mini basketball game equipment along a wall, that are built for intentional physical or virtual activities or games. Examples of activities and games may include dart board, mini basketball, Ping-Pong, billiards, karaoke, foosball, air hockey, computer/ video games, etc. Exclude outdoor space as it is asked in another question.**

**• Solitude spaces are spaces for personal lounging, break, or meditation.**

**• Fitness spaces are designated separate spaces or spaces with equipment placed at workstations for fitness. Examples of workstation equipment may include desk stationary bicycles, desk steppers, exercise ball chairs, tread-desks, etc.**

**• Social spaces are spaces for social networking or interactions in such spaces as cafe / cafeteria, break rooms, lounges, etc.**

| | 0% of total usable space | 1-5% of total usable space | 6-10% of total usable space | 11-20% of total usable space | 21-30% of total usable space | 31% or more of total usable space |
|---|---|---|---|---|---|---|
| ST 3-1. Play spaces or spaces with features for playing | ○ | ○ | ○ | ○ | ○ | ○ |
| ST 3-2. Solitude spaces or spaces with features for solitude activities | ○ | ○ | ○ | ○ | ○ | ○ |
| ST 3-3. Fitness spaces or features for fitness | ○ | ○ | ○ | ○ | ○ | ○ |
| ST 3-4. Social spaces or spaces with features for socialization | ○ | ○ | ○ | ○ | ○ | ○ |

ST 3-5. A total percentage of the recharge spaces
(DO NOT FILL OUT. FOR PROGRAMMER ONLY)

ST 3-6. Outdoor recharge spaces (The level of availability of outdoor recharge spaces for the amount of employees, rated from 1 being very insufficient to 5 very sufficient for the amount of employees. Examples may include outdoor lounge areas, outdoor gardens, balconies, rooftop gardens, etc.)

- ○ 1 - very insufficient

- ○ 2

- ○ 3

- ○ 4

- ○ 5 - very sufficient

ST 3-7. The level of balanced percentage of the total recharge spaces for the purposes and goals of the company (from 1 being very inappropriate to 5 being very appropriate)

- ○ 1 - Very Inappropriate

- ○ 2

- ○ 3

- ○ 4

- ○ 5 - Very Appropriate

\* Same spaces may be double counted for different questions depending on the purpose of the measurement.
\* A consultation with an appropriate party/personnel, e.g. designer(s), facility manger, furniture provider, etc. may be necessary to answer different sections of the form.

\* Usable space: Usable Area is a fully enclosed space in square feet available for tenant personnel, furnishings, fixtures and equipment (FF&E). This includes the aisles and walkways within tenant spaces for internal circulation on multi-tenant floors or, on single tenant floors, hallways and restrooms exclusively serving their floor(s).
\* Primary work spaces: Primary work spaces include spaces to focus, collaborate, and socialize in ST 1 Choice of Work Spaces.

**SFL 1. Flexibility of primary work spaces: A total amount of spaces with flexibility capacity in the primary work spaces.**

**• Expandability: A total amount of spaces with capacity to accommodate growth with expansion. An example may include a space with movable partitions to open up the space to accommodate bigger groups.**

**• Versatility: A total amount of spaces with capacity to accommodate several different activities as multifunctional spaces. An example may include a space with various settings of furniture to accommodate different activities in the same space.**

**• Convertibility: A total amount of spaces with capacity to change in function through the conversion of spaces. An example may include a space that can be easily modified to change its purpose to serve another function.**

| | 0% of primary work spaces | 1-10% of primary work spaces | 11-25% of primary work spaces | 26-50% of primary work spaces | 51-75% of primary work spaces | 76-90% of primary work spaces | 91-100% of primary work spaces |
|---|---|---|---|---|---|---|---|
| SFL 1-1. Expandability | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| SFL 1-2. Versatility | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| SFL 1-3. Convertibility | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

**SFL 2. Flow and connectivity: A total amount of spaces with appropriate adjacencies for information flow and openness measured in a given scale.**

**• Visual connectivity: A total amount of spaces with visual access or connections to other people whether enclosed or not. Examples may include areas using glass partitions/doors or lower partitions instead of solid partitions or higher partitions than 5 feet in the work areas, vertical openness between floors using stairs & atriums, intersecting circulation paths, etc.**

**• Core-interaction networks: A total amount of space planning where individuals who are the core interaction networks within a department are considered for the distribution along the core circulation paths for easy access and increased exposure. Include both primary and secondary circulations for the core circulation paths.**

**• Cross-pollination: A total percentage of core circulation paths that connect to the spaces where people frequently meet and gather informally. Include both primary and secondary circulations for the core circulation paths.**

**• Non-hierarchical spaces: A total amount of spaces that blur the traditional power structure at work through different space allocation or layout from the traditional planning. An example may include assigning spaces by the best use of the spaces or types of furniture by the functions of the person instead of the hierarchy of the organizational structure**

| | 0% of primary work spaces | 1-10% of primary work spaces | 11-25% of primary work spaces | 26%-50 of primary work spaces | 51-75% of primary work spaces | 76-90% of primary work spaces | 91-100% of primary work spaces |
|---|---|---|---|---|---|---|---|
| SFL 2-1. Visual connectivity | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| SFL 2-2. Core interaction networks | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| SFL 2-3. Cross-pollination | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| SFL 2-4. Non-hierarchical spaces | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

\* Same spaces may be double counted for different questions depending on the purpose of the measurement.
\* A consultation with an appropriate party/personnel, e.g. designer(s), facility manger, furniture provider, etc. may be necessary to answer different sections of the form.

\* Usable space: Usable Area is a fully enclosed space in square feet available for tenant personnel, furnishings, fixtures and equipment (FF&E). This includes the aisles and walkways within tenant spaces for internal circulation on multi-tenant floors or, on single tenant floors, hallways and restrooms exclusively serving their floor(s).
\* Primary work spaces: Primary work spaces include spaces to focus, collaborate, and socialize in ST 1 Choice of Work Spaces.

**SSA 1. Amount of Spaces: A total amount of spaces with a sufficient size in a given type of space.**

• **Individual work spaces: The amount of individual work spaces whose square footage is at least 90% of suggested sizes for their relative purposes (e.g. executive offices, private offices, cubicles, etc.) in the office planning guidelines and standards in industry or of the company for the types of spaces to support the primary job functions of workers. These spaces include both enclosed offices and open offices. These industry guidelines and standards may include those from International Facility Management Association (IFMA), Building Owners and Managers Association (BOMA), or other industry best practice guidance, where relevant.**

• **Collaborative work spaces: A total amount of collaborative work spaces whose square footage is at least 90% of suggested sizes in the office planning guidelines and standards in industry or of the company to accommodate desired numbers in groups frequently gathering in the collaborative spaces. These industry guidelines and standards may include those from International Facility Management Association (IFMA), Building Owners and Managers Association (BOMA), or other industry best practice guidance, where relevant.**

• **Storage spaces: A total amount of storage spaces in individual work spaces whose square footage is at least 90% of suggested sizes in the office planning guidelines and standards in industry or of the company to store appropriate items. These industry guidelines and standards may include those from International Facility Management Association (IFMA), Building Owners and Managers Association (BOMA), or other industry best practice guidance, where relevant.**

| 0% of individual work spaces with a sufficient size | 1-10% of individual work spaces with a sufficient size | 11-25% of individual work spaces with a sufficient size | 26-50% of individual work spaces with a sufficient size | 51-75% of individual work spaces with a sufficient size | 76-90% of individual work spaces with a sufficient size | 91-100% of individual work spaces with a sufficient size |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| SSA 1-1. Individual work spaces | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| SSA 1-2. Collaborative work spaces | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| SSA 1-3. Storage spaces | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

## SSA 2. Access to Equipment: The level of easiness of access to equipment in the core work spaces (A total amount of people who have access to equipment necessary to their jobs within 100 feet.)

○  0% of people with easy access to equipment

○  11-25% of people with easy access to equipment

○  26-50% of people with easy access to equipment

○  51-75% of people with easy access to equipment

○  76-90% of people with easy access to equipment

○  91-100% of people with easy access to equipment

\* Same spaces may be double counted for different questions depending on the purpose of the measurement.
\* A consultation with an appropriate party/personnel, e.g. designer(s), facility manger, furniture provider, etc. may be necessary to answer different sections of the form.

\* Usable space: Usable Area is a fully enclosed space in square feet available for tenant personnel, furnishings, fixtures and equipment (FF&E). This includes the aisles and walkways within tenant spaces for internal circulation on multi-tenant floors or, on single tenant floors, hallways and restrooms exclusively serving their floor(s).
\* Primary work spaces: Primary work spaces include spaces to focus, collaborate, and socialize in ST 1 Choice of Work Spaces.

**NPSR 1. Unique/ Fun Atmosphere: A total amount of spaces with features for neural and psychological stimulation and relaxation that are critical to creativity and innovation, measured in the amount of usable space.**

**• Stimulating art/design/craft work: A total amount of spaces with inspiring art/ design/ craft work that is intentionally installed and significantly present to stimulate people to be creative and innovative. Count it by the intention rather than the level of stimulation or the quality of work that may be subjective to various individuals at work.**

**• Unconventional functions & shapes and dramatic use of interior architectural & interior design elements: A total amount of spaces with interior architectural and design elements featuring atypical or unconventional functions, shapes, forms, and finishes in doors, stairs, ramps, walls, ceilings, floors, furniture, lighting, etc.**

**• Whimsical and fun decorative objects: A total amount of spaces with whimsical and fun signage, toys, ornaments, etc.**

| | 0% of total usable space | 1-10% of total usable space | 11-25% of total usable space | 26-50% of total usable space | 51-75% of total usable space | 76-90% of total usable space | 91-100% of total usable space |
|---|---|---|---|---|---|---|---|
| NPSR 1-1. Stimulating art/ design/ craft work | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| NPSR 1-2. Unconventional functions & shapes and dramatic use of interior architectural & interior design elements | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| NPSR 1-3. Whimsical and fun decorative objects | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

**NPSR 2. Stimulation of Senses: A total amount of spaces with features stimulating human senses, measured in the amount of usable space.**

• **Olfactory stimulation: A total amount of spaces using smell of beverage, food, aroma, scent, etc. to stimulate human olfactory sense.**

• **Auditory stimulation: A total amount of spaces using music and other sounds such as sound of nature to stimulate human auditory sense.**

• **Visual stimulation: A total amount of spaces using accentuated color including accentuated monochrome, color contrast, patterns, etc. to stimulate human visual sense.**

|  | 0% of total usable space | 1-10% of total usable space | 11-25% of total usable space | 26-50% of total usable space | 51-75% of total usable space | 76-90% of total usable space | 91-100% of total usable space |
|---|---|---|---|---|---|---|---|
| NPSR 2-1. Olfactory stimulation | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| NPSR 2-2. Auditory stimulation | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| NPSR 2-3. Visual stimulation | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

**NPSR 3. Relaxing Environment: A total amount of spaces with features reducing stress and increasing relaxation critical to creativity and innovation, measured in the amount of usable space.**

• **Natural elements: A total amount of spaces with natural elements including daylight, views of nature, interior vegetation /plants, water features, and other natural elements.**

• **Home-like settings: A total amount of spaces with features of home-like furniture & furnishings, home-like environment set-up such as living room, den, porch, fireplace, etc., home-like comfy ambiance, allowing pets, etc.**

|  | 0% of total usable space | 1-10% of total usable space | 11-25% of total usable space | 26-50% of total usable space | 51-75% of total usable space | 76-90% of total usable space | 91-100% of total usable space |
|---|---|---|---|---|---|---|---|
| NPSR 3-1. Natural elements | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| NPSR 3-2. Home-like settings | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

* Same spaces may be double counted for different questions depending on the purpose of the measurement.
* A consultation with an appropriate party/personnel, e.g. designer(s), facility manger, furniture provider, etc. may be necessary to answer different sections of the form.

* Usable space: Usable Area is a fully enclosed space in square feet available for tenant personnel, furnishings, fixtures and equipment (FF&E). This includes the aisles and walkways within tenant spaces for internal circulation on multi-tenant floors or, on single tenant floors, hallways and restrooms exclusively serving their floor(s).
* Primary work spaces: Primary work spaces include spaces to focus, collaborate, and socialize in ST 1 Choice of Work Spaces.

**FET 1. Furniture Ergonomics: A total amount of spaces provided with furniture ergonomics for the primary work spaces.**

**• Use of key ergonomic principles: A total amount of furniture chosen by utilizing key ergonomic principles for the primary work spaces. These key ergonomic principles include versatility, flexibility, fit, postural change, and maintainability.**

**• Use & compliance of ergonomic guidelines & standards: A total amount of furniture chosen by utilizing ergonomic guidelines and standards for the primary work spaces. These guidelines and standards include those from BIFMA, ANSI/HFES, OSHA, or other industry best practice guidance, where relevant.**

**• User involvement: A total amount of spaces where users were involved in the selection, training for appropriate use, satisfaction survey, etc. for furniture.**

| | 0% of the primary work spaces | 1-10% of the primary work spaces | 11-25% of the primary work spaces | 26-50% of the primary work spaces | 51-75% of the primary work spaces | 76-90% of the primary work spaces | 91-100% of the primary work spaces |
|---|---|---|---|---|---|---|---|
| FET 1-1. Use of key ergonomic principles | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| FET 1-2. Use & compliance of ergonomic guidelines & standards | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| FET 1-3. User involvement | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

**FET 2. Technology: A total amount of spaces supported by appropriate technology in a given type of space.**

**• Low-tech collaborative tools: manual tools available for display of ideas & communication, and group sharing & creation of information, using such tools as writing surfaces, white boards, pin-ups, etc.**

**• High-tech collaborative tools: electronic tools available for display of ideas & communication, group sharing & creation of information, and effective decision-making including both information technology and electronic hardware devices.**

**• Visualization of organizational goals and encouragement of creativity and innovation by using technology: utilizing technology to display and communicate organizational visions and goals, and encourage and acknowledge creative and innovative achievements within the company. An example may include electronic monitor displays.**

| | 0% of the primary work spaces | 1-10% of the primary work spaces | 11-25% of the primary work spaces | 26-50% of the primary work spaces | 51-75% of the primary work spaces | 76-90% of the primary work spaces | 91-100% of the primary work spaces |
|---|---|---|---|---|---|---|---|
| FET 2-1. Low-tech collaborative tools in the primary work spaces | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| FET 2-2. High-tech collaborative tools in the primary work spaces | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| FET 2-3. Visualization of organizational goals and encouragement of creativity and innovation by using technology in the total usable space | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

* Same spaces may be double counted for different questions depending on the purpose of the measurement.
* A consultation with an appropriate party/personnel, e.g. designer(s), facility manger, furniture provider, etc. may be necessary to answer different sections of the form.

* Usable space: Usable Area is a fully enclosed space in square feet available for tenant personnel, furnishings, fixtures and equipment (FF&E). This includes the aisles and walkways within tenant spaces for internal circulation on multi-tenant floors or, on single tenant floors, hallways and restrooms exclusively serving their floor(s).
* Primary work spaces: Primary work spaces include spaces to focus, collaborate, and socialize in ST 1 Choice of Work Spaces.

**AC 1. Acoustics: A total amount of spaces providing for noise control and sound privacy in the primary work spaces.**

**• Use of space planning principles to reduce noises: utilizing space planning principles to control noise in the primary work spaces. These planning principles include grouping similar types of areas together, placing buffer spaces to separate noisy spaces, avoiding room shapes causing sound to reflect or focus in specific spots, staggering doorways to avoid a straight path for noise, etc.**

**• Materials and systems furniture with acoustics: utilizing materials with appropriate noise reduction coefficient and systems furniture with sound absorbing materials on both sides.**

**• Isolation of noisy spaces: spaces that are not adjacent to the spaces constantly generating noises. These noisy spaces may include mechanical equipment rooms, copy rooms, etc.**

**• Use & compliance of acoustics guidelines/standards: utilizing acoustics guidelines and standards for noise control. These guidelines and standards may include those from ANSI, ASHRAE, ASA, CEN, or other industry best practice guidance, where relevant.**

| | 0% of primary work spaces | 1-10% of primary work spaces | 11-25% of primary work spaces | 26-50% of primary work spaces | 51-75% of primary work spaces | 76-90% of primary work spaces | 91-100% of primary work spaces |
|---|---|---|---|---|---|---|---|
| AC 1-1. Use of space planning principles to reduce noises | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| AC 1-2. Materials and systems furniture with acoustic | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| AC 1-3. Isolation of noisy spaces | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| AC 1-4. Use & compliance of acoustics guidelines/standards | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

**AC 2. Visual Comfort: A total amount of spaces providing visual comfort in a given type of space.**

**• Amount of light: appropriate amount of light available in the spaces for focus tasks via both ambient light and task light. The total amount in individual work spaces may be used instead.**

**• Access to daylight: daylight available in the primary spaces via side-light or skylight.**

**• Glare & reflection control: devices for daylight redirection and/or glare control. These devices may include interior shades, louvers, blinds, etc.**

**• Views to outdoors: direct line of sight to the outdoors via vision glazing in the primary work spaces**

**• Occupant control of lighting: devices for user control of lighting for visual comfort**

| | 0% of primary work spaces | 1-10% of primary work spaces | 11-25% of primary work spaces | 26-50% of primary work spaces | 51-75% of primary work spaces | 76-90% of primary work spaces | 91-100% of primary work spaces |
|---|---|---|---|---|---|---|---|
| AC 2-1. Amount of light in the focus spaces | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| AC 2-2. Access to daylight in the primary work spaces | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| AC 2-3. Glare & reflection control in the primary work spaces | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| AC 2-4 Views to outdoor in the primary work spaces | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| AC 2-5. Occupant control of lighting in the primary work spaces | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

**AC 3. Thermal Comfort: A total amount of spaces providing thermal comfort in the primary work spaces.**

**• Temperature and humidity: appropriate level of temperature & humidity, where less than 10% of users express problems with temperature and/or humidity.**

**• Occupant control of thermal comfort: devices for user control of thermal comfort such as windows, a thermostat, or a control for one of these: air speed, air temperature, radiant temperature, or humidity.**

**• Use & compliance of thermal comfort guidelines/standards: utilizing thermal comfort guidelines and standards. These guidelines and standards may include those from ASHRAE, ISO, EN , or other industry best practice guidance, where relevant.**

| | 0% of primary work spaces | 1-10% of primary work spaces | 11-25% of primary work spaces | 26-50% of primary work spaces | 51-75% of primary work spaces | 76-90% of primary work spaces | 91-100% of primary work spaces |
|---|---|---|---|---|---|---|---|
| AC 3-1. Appropriate temperature and humidity | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| AC 3-2. Occupant control of thermal comfort | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| AC 3-3. Use & compliance of thermal comfort guidelines/standards | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

**AC 4. Indoor Air Quality: A total amount of spaces providing appropriate quality air in the primary work spaces.**

**• Indoor air odor: appropriate level of indoor air odor , where less than 10% of users express problems with indoor air odor.**

**• Fresh air/non-stale air: appropriate level of fresh air/non-stale air, where less than 10% of users express problems with stale air.**

**• Air movement/draft: appropriate level of indoor air movement/draft, where less than 10% of users express problems with air movement/draft.**

**• Isolation & removal of chemicals, particles, and irritants from indoor air: appropriate planning, mechanisms, and devices to isolate and remove indoor air chemicals, particles, and irritants in areas with high concentration of these substances such as copy rooms, janitor's closets, entryways, etc.**

**• Low emitting finishes and furnishings: using low emitting finishes and furnishings that are certified by a third-party such as C2C, FloorScore, Green Label, SMaRT, Green Seal, GREENGUARD, level, Indoor Advantage, or other industry best practice guidance, where relevant.**

**• Occupant control of indoor air quality: devices for user control of indoor air quality such as operable windows, openings, etc.**

**• Use & compliance of indoor air quality guidelines/standards: utilizing indoor air quality guidelines and standards. These guidelines and standards may include ASHRAE standards or other industry best practice guidance, where relevant.**

| | 0% of primary work spaces | 1-10% of primary work spaces | 11-25% of primary work spaces | 26-50% of primary work spaces | 51-75% of primary work spaces | 76-90% of primary work spaces | 91-100% of primary work spaces |
|---|---|---|---|---|---|---|---|
| AC 4-1. Appropriate indoor air odor | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| AC 4-2. Appropriate fresh/non-stale air | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| AC 4-3. Appropriate air movement/draft | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| AC 4-4. Isolation & removal of chemicals, particles, and irritants from indoor air | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| AC 4-5. Low emitting finishes and furnishings | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| AC 4-6. Occupant control of indoor quality | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

| AC 4-7. Use & compliance of indoor air quality guidelines/standards | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

* Same spaces may be double counted for different questions depending on the purpose of the measurement.
* A consultation with an appropriate party/personnel, e.g. designer(s), facility manger, furniture provider, etc. may be necessary to answer different sections of the form.

* Usable space: Usable Area is a fully enclosed space in square feet available for tenant personnel, furnishings, fixtures and equipment (FF&E). This includes the aisles and walkways within tenant spaces for internal circulation on multi-tenant floors or, on single tenant floors, hallways and restrooms exclusively serving their floor(s).
* Primary work spaces: Primary work spaces include spaces to focus, collaborate, and socialize in ST 1 Choice of Work Spaces.

## H 1. Healthfulness: The level of considerations for health issues critical to human health and performance.

## H 1-1. Cleaning materials and products (The level of use of green cleaning materials and products with no harmful chemicals that are certified by a third party such as Green Seal, Environmental Choice CCD, or other industry best practice guidance, where relevant.)

○  0% of all cleaning agents are green cleaning products

○  1-10% of all cleaning agents are green cleaning products

○  11-25% of all cleaning agents are green cleaning products

○  26-50% of all cleaning agents are green cleaning products

○  51-75% of all cleaning agents are green cleaning products

○  76-90% of all cleaning agents are green cleaning products

○  91-100% of all cleaning agents are green cleaning products

**H 1-2. Cleanliness & maintenance of the usable space (The level of achieving cleanliness and hygiene that is equivalent to Level 2 Ordinary Tidiness in the APPA (Association of Higher Education Facilities Officers) custodial guideline. Ordinary Tidiness is defined all surfaces are clean and there is no build up in corners or along walls. But there may possibly be two days' worth of dust, dirt, stains, or streaks, and noticeable marks, dust, smudges, and fingerprints upon close examination. Trash containers hold only daily waste, are clean and odor-free.)**

○ 0% of usable space is APPA Level 2 clean

○ 1-10% of usable space is APPA Level 2 clean

○ 11-25% of usable space is APPA Level 2 clean

○ 26-50% of usable space is APPA Level 2 clean

○ 51-75% of usable space is APPA Level 2 clean

○ 76-90% of usable space is APPA Level 2 clean

○ 91-100% of usable space is APPA Level 2 clean

**H 1-3. Access to fresh drinking water (A total amount of people with access to clean and fresh drinking water on each floor in such places as drinking fountains, kitchenettes, cafeteria, commons, etc.)**

○ 0% of employees have access to fresh drinking water on their floor

○ 1-10% of employees have access to fresh drinking water on their floor

○ 11-25% of employees have access to fresh drinking water on their floor

○ 26-50% of employees have access to fresh drinking water on their floor

○ 51-75% of employees have access to fresh drinking water on their floor

○ 76-90% of employees have access to fresh drinking water on their floor

○ 91-100% of employees have access to fresh drinking water on their floor

# PART 2: INNOVATION STRATEGIES

**All questions are required as part of the critical analyses except the questions in grey. The questions in grey are voluntary. We recommend you fill out these questions to see further enhanced analyses against the benchmark.**

## Project Name:

[                                                                 ]

## Project/Facility Location:

○ USA

○ Canada

○ Europe

○ Asia

○ South America

○ Other

## Project/Facility Location Region for the US:

○ East Coast

○ Midwest

○ West Coast

○ South East

○ South West

○ Other

## Project/Facility Industry Type

○ Aerospace and Defense

○ Automobiles, Motorcycles, and Components

○ Capital Equipment

○ Chemicals and Materials

○ Consumer Goods (e.g. personal electronics, food/beverage, or textiles)

○ Energy and Mining

○ Finance, Insurance, and Real Estate

○ Healthcare

○ Information Technology – Goods and Services

○ Professional, Scientific, and Technical Services

○ Telecommunications and Utilities

○ Other Services

**1. Total sales and revenues during the last fiscal year from this location/facility:**

**2. Total sales and revenues three fiscal years ago from this location/facility:**

**3. Percentage of revenue growth from this location/facility:**

**4. Average number of full-time employees during the last fiscal year from this location/facility:**

**5. Average number of full-time employees three fiscal years ago from this location/facility:**

**6. Percentage of employment growth from this location/facility (Programmer Only):**

**7. Long term strategies most important to your company:**

○ Main focus on good or service positioning (e.g. product leadership, market segmentation, product diversification, improving quality)

○ Main focus on low-price and cost leadership (e.g. market share)

○ Other (please specify)

**8. Performance indicators used to monitor performance of the long term strategic objectives: (Check all that apply)**

☐ Gross margin/operating margin growth

☐ Sales/income growth

☐ Shareholder dividends growth

☐ Market/customer share growth

☐ Increased customer satisfaction

☐ Increased sale of new products

☐ Improved delivery time

☐ Other (please specify)

## 9. The implementation degree of innovation strategies currently used in your company:

| | Fully | Partly | Not at All | Not Applicable |
|---|---|---|---|---|
| There is a system in place for evaluating and developing innovative ideas put forward by employees | ○ | ○ | ○ | ○ |
| All employees who are in position to provide ideas for innovations are provided with feedback | ○ | ○ | ○ | ○ |
| Senior management supports trial-and-error testing of new ideas | ○ | ○ | ○ | ○ |
| Senior management is willing to take risks to support an innovation | ○ | ○ | ○ | ○ |
| Specific people are assigned to an innovation to take it from the idea stage to completion | ○ | ○ | ○ | ○ |
| Sufficient resources necessary to your company/branch of company are available to develop an innovation | ○ | ○ | ○ | ○ |
| Your employees are highly motivated to think of new ideas and take part in their development | ○ | ○ | ○ | ○ |
| There is a mature culture established for your employees to be supportive of change and innovation | ○ | ○ | ○ | ○ |
| Clients are actively involved in the design or planning of new or substantially changed products or services | ○ | ○ | ○ | ○ |
| New or substantially changed products or services are independently evaluated after completion | ○ | ○ | ○ | ○ |
| Evaluation results are used to improve [your branch's / your company's] innovation practices | ○ | ○ | ○ | ○ |
| Client satisfaction surveys are conducted after implementing new or substantially changed products or services | ○ | ○ | ○ | ○ |

## 10. Methods currently used to stimulate new ideas or creativity among the employees:(Check all that apply)

☐ Brainstorming sessions

☐ Multidisciplinary or cross-functional work teams

☐ Job rotation of staff to different departments or other parts of your enterprise group

☐ Financial incentives for employees to develop new ideas

☐ Non-financial incentives for employees to develop new ideas, such as free time, public recognition, more interesting work, etc.

☐ Training employees on how to develop new ideas or creativity

**11. The degree of importance of supporting below organizational environmental attributes, process attributes, and worker attributes to your company/branch of the company in creating organizational creativity and innovation:**

### Organizational Environment and Culture

| | Very Important | Important | Somewhat Important | Not Important | Not Applicable |
|---|---|---|---|---|---|
| Freedom & Autonomy | ○ | ○ | ○ | ○ | ○ |
| Trust & Openness | ○ | ○ | ○ | ○ | ○ |
| Good Communication | ○ | ○ | ○ | ○ | ○ |
| Playfulness, Humor, Spontaneity, and Ease | ○ | ○ | ○ | ○ | ○ |
| Shared Vision and Alignment with Missions, Goals, & Objectives of the Organization | ○ | ○ | ○ | ○ | ○ |
| Enthusiastic Support for Work and Recognition & Support of Creative and Innovative Ideas | ○ | ○ | ○ | ○ | ○ |
| Open to New Ideas and Expectations for & Encouragement of New ideas | ○ | ○ | ○ | ○ | ○ |

### Process

| | Very Important | Important | Somewhat Important | Not Important | Not Applicable |
|---|---|---|---|---|---|
| Knowledge Share | ○ | ○ | ○ | ○ | ○ |
| Display of Ideas | ○ | ○ | ○ | ○ | ○ |
| Changing Activities & Team Member Numbers | ○ | ○ | ○ | ○ | ○ |
| Diverse Activities | ○ | ○ | ○ | ○ | ○ |
| Interaction | ○ | ○ | ○ | ○ | ○ |
| Collaboration | ○ | ○ | ○ | ○ | ○ |
| Work Flow | ○ | ○ | ○ | ○ | ○ |
| Time (sufficient time to develop ideas/fast time to market) | ○ | ○ | ○ | ○ | ○ |

### Individuals and Groups:

| | Very Important | Important | Somewhat Important | Not Important | Not Applicable |
|---|---|---|---|---|---|
| Cognitive Style and Psychological Process Conducive to Creativity | ○ | ○ | ○ | ○ | ○ |
| Individual Performance, Health, and Well-being | ○ | ○ | ○ | ○ | ○ |

**12. When was your workplace designed and constructed:**

○ less than 3 years ago

○ 3-6 years ago

○ 7-10 years ago

○ more than 10 years ago

# PART 3: INNOVATION PERFORMANCE OF THE COMPANY

A product innovation is the market introduction of a new or significantly improved good or service with respect to its capabilities, user friendliness, components, or sub-systems.
• Product innovations (new or improved) must be new to your company, but they do not need to be new to your market.
• Product innovations could have been originally developed by your company or by other companies.

A good is usually a tangible object such as a smart phone, furniture, or packaged software, but downloadable software, music and film are also goods. A service is usually intangible, such as retailing, insurance, educational courses, air travel, consulting, etc.

**NOT APPLICABLE**

## PI 1. Does your company/branch of company produce:

○ Products/Goods

○ Services

○ Products/Goods and Services

## PI 2. Products/Goods

PI 2-1. Number of new or significantly improved goods that your company/branch of company produced during the last three fiscal years: (Exclude simple resale of new goods purchased from other companies and changes of a solely aesthetic nature)

## PI 3. Services

PI 3-1. Number of new or significantly improved services that your company/branch of company produced during the last three fiscal years:

## Topic 2: Process Innovation

A process innovation is the implementation of a new or significantly improved production process, distribution method, or support activity for your goods or services.

• Process innovations must be new to your company, but they do not need to be new to your market.
• The innovation could have been originally developed by your company or by other companies.
• Exclude purely organizational innovations.

### NOT APPLICABLE

### PRI 1. Number of the following items that your company/branch introduced during the last three fiscal years:

PRI 1-1. New or significantly improved methods of manufacturing or producing goods or services

PRI 1-2. New or significantly improved logistics, delivery or distribution methods for your inputs, goods, or services in quality of time

PRI 1-3. New or significantly improved supporting activities for your processes, such as maintenance systems or operations for purchasing, accounting, or computing

An organizational innovation is a new organizational method in your company's business practices (including knowledge management), workplace organization or external relations that has not been previously used by your company.

• It must be the result of strategic decisions taken by management.
• Exclude mergers or acquisitions, even if for the first time.

### NOT APPLICABLE

## OI 1. Number of the following items that your company/branch introduced during the last three fiscal years:

OI 1-1. New business practices for organizing procedures (i.e. supply chain management, business re-engineering, knowledge management, lean production, quality management, etc.)

OI 1-2. New methods of organizing work responsibilities and decision making (i.e. first use of a new system of employee responsibilities, team work, decentralization, integration or de-integration of departments, education/training systems, etc.)

OI 1-3. New methods of organizing external relations with other firms or public institutions (i.e. first use of alliances, partnerships, outsourcing or subcontracting, etc.)

A marketing innovation is the implementation of a new marketing concept or strategy that differs significantly from your company's existing marketing methods and which has not been used before.
• It requires significant changes in product design or packaging, product placement, product promotion or pricing.
• Exclude seasonal, regular and other routine changes in marketing methods.

**NOT APPLICABLE**

## MI 1. Number of the following items that your company/branch introduced during the last three fiscal years:

MI 1-1. Significant changes to the aesthetic design or packaging of a good or service (exclude changes that alter the product's functional or user characteristics; these are product innovations)

MI 1-2. New media or techniques for product promotion (i.e. the first time use of a new advertising media, a new brand image, introduction of loyalty cards, etc.)

MI 1-3. New methods for product placement or sales channels (i.e. first time use of franchising or distribution licenses, direct selling, exclusive retailing, new concepts for product presentation, etc.)

MI 1-4. New methods of pricing goods or services (i.e. first time use of variable pricing by demand, discount systems, etc.)

MI 1-5. Significantly improved speed/time to market

• Intellectual property (IP) refers to creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce. Intellectual property includes copyright, patent, trademark, and industrial design. Each definition according to the World Intellectual Property Organization is provided below.

• Copyright is a legal term used to describe the rights that creators have over their literary and artistic works. Works covered by copyright range from books, music, paintings, sculpture and films, to computer programs, databases, advertisements, maps and technical drawings.

• A patent is an exclusive right granted for an invention. Generally speaking, a patent provides the patent owner with the right to decide how - or whether - the invention can be used by others. In exchange for this right, the patent owner makes technical information about the invention publicly available in the published patent document.

• A trademark is a sign capable of distinguishing the goods or services of one enterprise from those of other enterprises. Trademarks date back to ancient times when craftsmen used to put their signature or "mark" on their products.

• An industrial design constitutes the ornamental or aesthetic aspect of an article. A design may consist of three-dimensional features, such as the shape or surface of an article, or of two-dimensional features, such as patterns, lines or color.

**NOT APPLICABLE**

### IP 1. Total number of intellectual property claims from your company/branch in the last three fiscal years:

IP 1-2. Number of Copyrights issued to your company: 

IP 1-4. Number of Patents issued to your company: 

IP 1-6. Number of Trademarks issued to your company: 

IP 1-8. Number of Industrial Designs issued to your company: 

### IP 2. Total number of awards or nominations for awards as recognitions for innovative inventions, changes, performance, etc. of your company by professional/industry organizations: